# Take Test: Quiz 1.1

## Test Information

Description

Instructions

Multiple Attempts This test allows multiple attempts.

Force Completion This test can be saved and resumed later.

Question Completion Status:

1 2 3 4

**QUESTION 1** **1 points** Saved

*Click Save and Submit to save and submit. Click Save All Answers to save all answers.*

- Mechanical systems, but not electrical systems
- (•) Almost any engineering system
- Engineering systems that have a lot of computational power

**QUESTION 2** **1 points** Saved

Control systems are used when:

- (•) Some quantity must be made to behave in a desirable manner
- Models of physical processes are highly accurate
- Humans make too many mistakes

- ○ There are inadequate resources for sensing or actuation

**QUESTION 3** 1 points Saved

A core element of any control system is feedback. Which one of the following statements most closely describes feedback?

- ○ Actual behavior is compared with desired behavior, but no corrective action is taken.
- ○ Actual behavior determines corrective actions.
- ◉ Actual behavior is compared with desired behavior, and corrective action is taken based on the difference.
- ○ Desired behavior determines corrective actions.

**QUESTION 4** 1 points Saved

Which of the following best describes the use of feedback in an HVAC system?

- ○ The actual temperature is compared to the desired temperature, and heating is applied for 3 minutes
- ◉ The actual temperature is compared to the desired temperature, and heating or cooling is applied based on the difference
- ○ The desired temperature is set, and heat or cooling is applied for 5 minutes
- ○ The desired temperature is adjusted repeatedly by the human operator